#### ENDURING RESOURCES, LLC

425 Seventeenth Street, Suite 1500 Denver, Colorado 80202 Telephone: 303-573-1222

Facsimile: 303-573-0461

January 27, 2006

State of Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 P.O. Box 145801 Salt lake City, Utah 84114-5801

Attention:

Diana Whitney

RE:

Buck Camp 11-22-21-36 771' FNL -- 2,077' FWL NENW Sec. 36-T11S-R22E Uintah County, Utah

Lease #: ML-47077

Dear Ms. Whitney

Attached are two original applications to drill for the above-referenced proposed well. This well will be drilled on State of Utah lands. A copy of this APD is being sent to SITLA. Access into this section is using an existing County Road.

Enduring Resources, LLC respectfully requests that this information, and future information, be held confidential.

Should you have any questions concerning this matter, please do not hesitate to call (303-350-5114)

Very truly yours

**ENDURING RESOURCES, LLC** 

Alvin R. (Al) Arlian

Landman - Regulatory Specialist

ara/

Attachments as stated:

RECEIVED FEB 0 1 2006

DIV. OF OIL, GAS & MINING

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

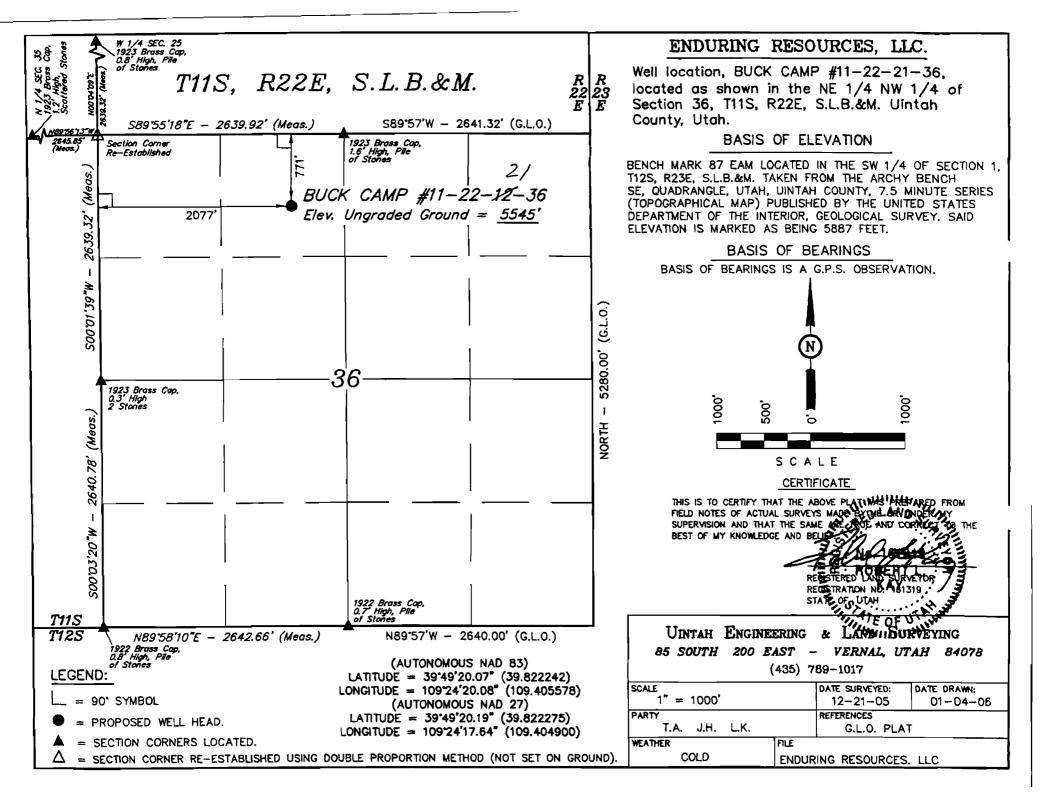
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FORM 3

			DIV	ISION OF OI	L, GAS AN	ID MINING		W)		D REPORT t changes)
		APPLICAT	ION FOR F	PERMIT TO	D DRILL		ML	5. MINERAL LEA		6. SURFACE: State
1A. TYPE OF W	ORK: [	RILL 🗸	REENTER	DEEPEN				7. IF INDIAN, ALL		RIBE NAME:
B. TYPE OF WE	ELL: OIL	GAS 🗹 (	OTHER	SIN	GLE ZONE	Z MULTIPLE ZON	vE □	8. UNIT or CA AG	REEMENT N	AME:
2. NAME OF OPI								9. WELL NAME a	and NUMBER:	
	Resources,	LLC						Buck Can	•	
3. ADDRESS OF 475 17th S		) <sub>em</sub> Denve	r	<sub>E</sub> CO <sub>247</sub> 80	220	PHONE NUMBER: (303) 350-5114		10. FIELD AND F Undesign:		DCAT:
	WELL (FOOTAG		5141	H = - 24:		(000) 000 0111		11. QTR/QTR, SE		NSHIP, RANGE,
AT SURFACE:	77	71' FNL - 2,07	77' FWL	NEN	W			MERIDIAN: NENW 3	6 11S	22E S
AT PROPOSEI	PRODUCING ZO	NE:	SAME							
14. DISTANCE IN	MILES AND DIRE	ECTION FROM NEAR	EST TOWN OR POS	T OFFICE:				12. COUNTY:		13. STATE:
70 miles	from Verna	l, Utah						Uintah		UTAH
15. DISTANCE T	O NEAREST PRO	PERTY OR LEASE LI	NE (FEET)	16. NUMBER O	F ACRES IN LEAS	SE:	17. N	UMBER OF ACRES	S ASSIGNED	TO THIS WELL:
771'						320				40 acres
18. DISTANCE TO APPLIED FO	O NEAREST WEL R) ON THIS LEAS	L (DRILLING, COMPL E (FEET)	ETED, OR	19. PROPOSED	DEPTH:		20. B	OND DESCRIPTION	N:	
1000' +	· · · · · · · · · · · · · · · · · · ·					7,290		_B0008031		
	,	ER DF, RT, GR, ETC.	):	22. APPROXIMA 4/1/2006	ATE DATE WORK	( WILL START:	1	STIMATED DURAT days	ION:	
5559' k	KB-RT			4/1/2000	,			————		
24.			PROPOSE	ED CASING A	ND CEMEN	TING PROGRAM				
SIZE OF HOLE	CASING SIZE,	GRADE, AND WEIG	HT PER FOOT	SETTING DEPTH		CEMENT TYPE, QU	ANTITY,	YIELD, AND SLUR	RY WEIGHT	
20"	14"	line pipe		40	3 yards		Read	y Mix		
11"	8-5/8"	J-55	24#	2,000	Premium (	Lead	13	8 sxs	3.50	11.1
					Premium 1	Tail	13	8 sxs	1.15	15.8
7-7/8"	4-1/2"	N-80	11.6#	7,290	Class G		6	7 sxs	3.3	11.0
				•	50/50 Poz	: Class G	88	1 sxs	1.56	14.3
		_	<u> </u>	ATTA	CHMENTS					
25.									ורוודו	ENITIAL
VERIFY THE FOL	LOWING ARE AT	TACHED IN ACCORE	ANCE WITH THE UT	TAH OIL AND GAS C	ONSERVATION G	SENERAL RULES:		- CUI	NFID	CMINE
WELL PL	AT OR MAP PREF	PARED BY LICENSED	SURVEYOR OR EN	GINEER	✓ con	MPLETE DRILLING PLAN				
<b>Z</b> EVIDENC	E OF DIVISION O	F WATER RIGHTS A	PPROVAL FOR USE	OF WATER	☐ FOF	RM 5, IF OPERATOR IS PE	RSON C	R COMPANY OTH	ER THAN THE	LEASE OWNER
	Alvin F	Q (ΔΙ) Arlian				Landman - Re	aulat	on, Speciali	et	
NAME (PLEASE I	PRINT) /////	R. (AI) Arlian			TITLE		guiat	ory opeoidin		
SIGNATURE	<u></u>	TA			DATE	1/27/2006			-	
(This space for Sta	te use only)									
	11	3-047-3	2474							
API NUMBER ASS	SIGNED: 7	0.011-0	<del>,                                    </del>	<del></del>	APPROVAL:			RECE	IVED	ľ

(See Instructions on Reverse Side)

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#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

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DIV. OF OIL, GAS & MINING

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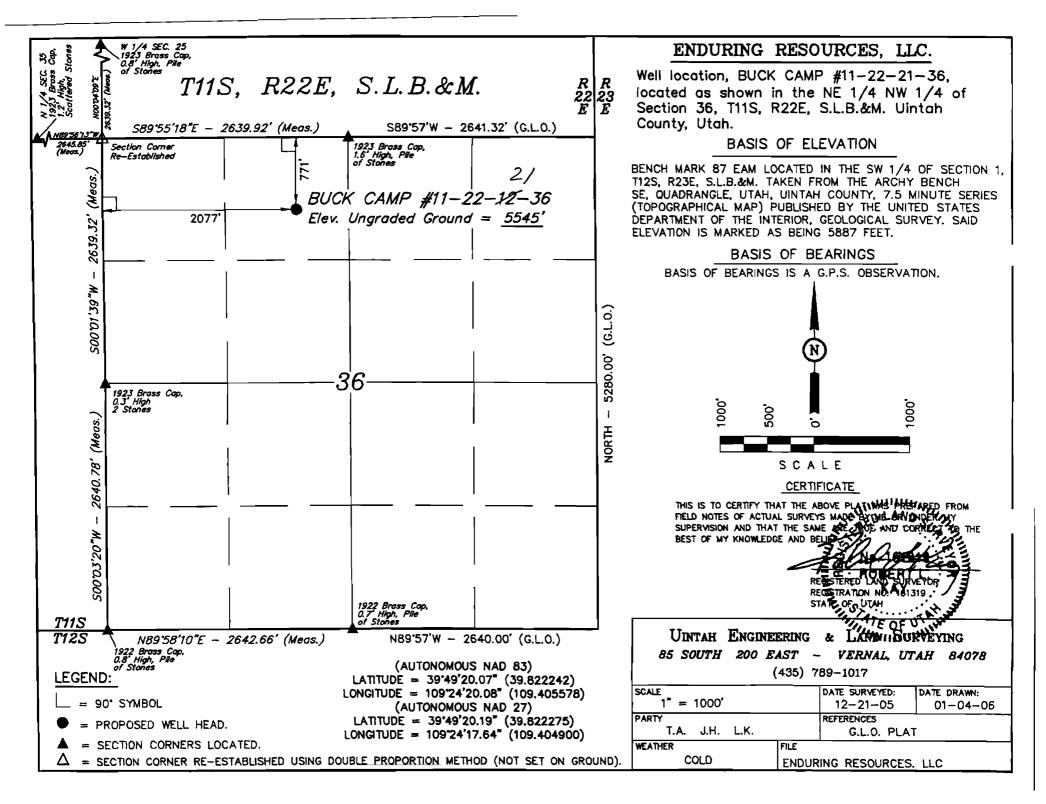
FORM 3

AMENDED REPORT

(highlight changes)

	AF	PPLICATI	ON FOR	PERMIT TO	D DRILL	ML	5. MINERAL LEASE NO: 47077	6. SURFACE: State
1A. TYPE OF WO	ORK: DRI	LL 🔽 R	EENTER [	DEEPEN		•	7. IF INDIAN, ALLOTTEE OR	TRIBE NAME:
B. TYPE OF WE	ELL: OIL 🗌 (	GAS 🗹 O	THER	SIN	GLE ZONE 🗹 MULTIPLE ZON	1E 🔲	8. UNIT or CA AGREEMENT	NAME:
2. NAME OF OPE	ERATOR:						9. WELL NAME and NUMBER	₹:
	Resources, LL	С					Buck Camp 11-22	
	4 04 4500	OFF Denver	STA	TE CO ZU 80	220 PHONE NUMBER: (303) 350-5114		10. FIELD AND POOL, OR W Undesignated	ILDCAT:
4. LOCATION OF	WELL (FOOTAGES)		40	149035X	39 82223		11. QTR/QTR, SECTION, TO MERIDIAN:	WNSHIP, RANGE,
AT SURFACE:	771'	FNL - 2,07	زل FWL ال	36520Y NEN	W		NENW 36 118	S 22E S
AT PROPOSE	PRODUCING ZONE:		SAME	,	w 39 822 23 w -109 46490			
14. DISTANCE IN	N MILES AND DIRECTI	ON FROM NEARE	ST TOWN OR PO	ST OFFICE:			12. COUNTY:	13. STATE: UTAH
70 miles	from Vernal, t	Jtah					Uintah	
	O NEAREST PROPER	TY OR LEASE LIN	E (FEET)	16. NUMBER O	F ACRES IN LEASE:	17. N	UMBER OF ACRES ASSIGNED	TO THIS WELL:
771'					320			40 acres
	O NEAREST WELL (DI R) ON THIS LEASE (FE		TED, OR	19. PROPOSED		1	OND DESCRIPTION:	
1000' +					7,290		_B0008031	
	S (SHOW WHETHER D	F, RT, GR, ETC.):		4/1/2006	ATE DATE WORK WILL START:		STIMATED DURATION:	
5559' k	(B-RT			4/1/2000	)	20	days	
24.			PROPOS	ED CASING A	ND CEMENTING PROGRAM			
SIZE OF HOLE	CASING SIZE, GRA	ADE, AND WEIGH	PER FOOT	SETTING DEPTH	CEMENT TYPE, QU	ANTITY,	YIELD, AND SLURRY WEIGHT	
20"	14" li	ne pipe		40	3 yards	Read	ly Mix	
11"	8-5/8"	J-55	24#	2,000	Premium Lead	13	88 sxs 3.50	) 11.1
					Premium Tail	13	8 sxs 1.15	15.8
7-7/8"	4-1/2"	N-80	11.6#	7,290	Class G	6	7 sxs 3.3	3 11.0
					50/50 Poz Class G	88	1 sxs 1.56	14.3
				ATT A	CHMENTS			
25. —							CONTIN	ENTIAL
VERIFY THE FOL	LOWING ARE ATTAC	HED IN ACCORDA	NCE WITH THE U	ITAH OIL AND GAS C	ONSERVATION GENERAL RULES:		CONFIL	ENTIAL
WELL PL	AT OR MAP PREPARE	ED BY LICENSED S	SURVEYOR OR E	NGINEER	COMPLETE DRILLING PLAN		00.	
<b>✓</b> EVIDENC	CE OF DIVISION OF W	ATER RIGHTS API	PROVAL FOR USI	E OF WATER	FORM 5, IF OPERATOR IS PE	RSON C	R COMPANY OTHER THAN TH	HE LEASE OWNER
					_			
MANE (D) EACE	<sub>PRINT)</sub> Alvin R. (	(AI) Arlian			<sub>тітье</sub> Landman - Re	gulat	ory Specialist	
	PRINT)			) 	1/27/2006	<u> </u>		
SIGNATURE					DATE			
(This space for Sta		-047-37	1674		Approved by the Utah Division of Dil, Gas and Mining		RECEIVED	)

(11/2001)



#### ENDURING RESOURCES, LLC

425 Seventeenth Street, Suite 1500 Denver, Colorado 80202

Telephone: 303-573-1222 Facsimile: 303-573-0461

January 27, 2006

State of Utah
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Attention: Ms. Diana Whitney

RE: Request for Exception Well Location

Buck Camp 11-22-21-36 Buck Camp 11-22-22-36

NENW Sec. 36-T11S-R22E Surface: NENW Sec. 36-T11S-R22E

771 FNL – 2,077' FWL 789' FNL – 2,061' FWL

Lease #ML 47077 BHL: SENW Section 2-T12S-R22E

Uintah County, Utah 1,980' FNL – 1,980' FWL

Lease #ML 47077 Uintah County, Utah

Dear Ms. Whitney:

Enduring Resources, LLC ("ERLLC") is the only leasehold interest owner within 460 feet of any part of the above-referenced proposed wells' proposed well bores.

- 1. The Buck Camp 11-22-21-36 is a vertical well,
- 2. The *Buck Camp 11-22-22-36 is a directional well* to be drilled from the Buck Camp 11-22-21-36 well pad, and
- 3. The subject wells' surface location is only 25 feet apart.

ERLLC is the only leasehold interest owner within the NW of Sec 36, therefore,

- A. ERLLC grants itself permission to directionally drill the Buck Camp 11-22-22-36, and
- B. ERLLC also grants itself permission for exception well(s)' surface locations.

In the event there are any other outstanding matters preventing these APD's from being approved, please let me know at your earliest convenience, 303-350-5114 (aarlian@enduringresources.com).

Very truly yours

**ENDURING RESOURCES, LLC** 

Alvin R. (Al) Arlian

Landman - Regulatory Specialist

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#### **Enduring Resources, LLC**

Buck Camp 11-22-21-36 771' FNL – 2,077' FWL NENW Sec. 36-T11S-R22E Uintah County, Utah

Lease #: ML-47077

#### **ONSHORE ORDER 1 - DRILLING PLAN**

#### 1. <u>Estimated Tops of Geological Markers:</u>

Formation	Depth (K.B.)
Uinta	Surface
Green River	416'
Wasatch	2866'
Mesaverde	4911'

#### 2. <u>Estimated Depths of Anticipated Water, Oil, Gas or Other Minerals:</u>

Substance	Formation	Depth (K.B.) TVD
-		
	KB-Uinta Elevation: 5559' est.	
Oil / Gas	Green River	416'
Oil /Gas	Wasatch	2866'
Oil /Gas	Mesaverde	4911'
	TD	7290'

An 11" hole will be drilled to approximately 2000 feet. The depth will be determined by the depth that the Birds Nest zone is encountered. The hole will be drilled 400 feet beyond the top of the Birds Nest zone and surface casing will be set.

#### 3. Pressure Control Equipment: (3000 psi schematic attached)

- A. Type: Eleven (11) inch double gate hydraulic BOP with eleven (11) inch annular preventer on 3,000 psi casinghead, with 3,000 psi choke manifold equipped per the attached diagram. BOPE as specified in Onshore Oil & Gas Order Number 2. A PVT, stroke counter and flow sensor will be installed to check for flow and monitor pit volume.
- B. Pressure Rating: 3,000 psi BOPE
- C. Kelly will be equipped with upper and lower Kelly valves.
- D. Testing Procedure: Annular Preventer

At a minimum, the annular preventer will be pressure tested to 50% of the stack rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

- 1. When the annular preventer is initially installed;
- 2. Whenever any seal subject to test pressure is broken;
- 3. Following related repairs; and
- 4. At thirty (30) day intervals.

In addition to the above, the annular preventer will be functionally operated at least weekly.

#### **Blow-Out Preventer**

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

- 1. When the BOP is initially installed;
- 2. Whenever any seal subject to test pressure is broken;
- 3. Following related repairs; and
- 4. At thirty (30) day intervals.

In addition to the above, the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

#### E. Miscellaneous Information:

The blowout preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of Onshore Oil & Gas Order Number 2.

#### 4. **Proposed Casing & Cementing Program:**

#### A. Casing Program: All New

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Depth Set
					(MD)
20"	14" O.D.				40' (GL)
11"	8-5/8"	24#	J-55	ST&C	0 – 2,016' (KB) est.
7-7/8"	4-1/2"	11.6#	N-80	LT&C	0 – 7,290' (KB)

The surface casing will have guide shoe, 1 joint, insert float collar. Centralize the shoe

joint with bowspring centralizers in the middle and top of the joint and the next 16 joints with bowspring centralizers on every other collar (8 centralizers total). Thread lock guide shoe.

Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

#### **B.** Casing Design Parameters:

Depth (MD)	Casing	Collapse(psi)/SF	Burst (psi)/SF	Tension(mlbs)/SF
40' (GL)	14" OD			
2016' (KB)	8-5/8", 24#/ft, J55, STC	1370/1.52(a)	2950/3.28(b)	244/5.81(c)
7290' (KB)	4-1/2", 11.6#/ft, N-80, LTC	6350/1.68 (d)	7780/2.23 (e)	223/3.07 (f)

- (a.) based on full evacuation of pipe with 8.6 ppg fluid on annulus
- (b.) based on 8.6 ppg gradient with no fluid on annulus
- (c.) based on casing string weight in 8.6 ppg mud
- (d.) based on full evacuation of pipe with 10.0 ppg fluid on annulus
- (e.) based on 9.2 ppg gradient, gas to surface, with no fluid on annulus, no gas gradient
- (f.) based on casing string weight in 9.2 ppg mud

#### PROPOSED CEMENTING PROGRAM

#### Surface Casing (if well will circulate)-Cemented to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	sxs	EXCESS (%)	WEIGHT (ppg)	YIELD (ft <sup>3</sup> /sx)
8-5/8"	Lead	1516	Premium cement + 16% gel + 0.25 pps celloflake	138	25%	11.1	3.50
8-5/8"	Tail	500	Premium cement + 2% CaC <sub>2</sub> + 0.25 pps celloflake	138	25%	15.8	1.15

A cement top job is required if cement fallback is greater than 10' below ground level. Top job (weight 15.8 ppg, yield 1.15  $\rm ft^3/sx$ ) cement will be premium cement w/  $\rm 3\%~CaCl_2+0.25~pps$  celloflake. Volume as required

#### Surface Casing (if well will not circulate) - Cemented to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	sxs	EXCESS (%)	WEIGHT (ppg)	YIELD (ft <sup>3</sup> /sx)
8-5/8"	Lead	500	Premium cement + 2% CaCl <sub>2</sub> + 0.25 pps celloflake	138	25	15.8	1.15
8-5/8"	Top job	As req.	Premium cement + 3% CaCl <sub>2</sub> + 0.25 pps celloflake	As Req.		15.8	1.15

#### Production Casing and Liner - Cemented TD to 300' above base of surface casing

CASING	SLURRY	FT.	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft <sup>3</sup> /sx)
		FILL			(70)	(PP9)	(11.75%)
4-1/2"	Lead	750	Class "G" + 5% NaCl + 12% Gel + 0.25 pps celloflake + 0.2% antifoam + 0.25% fluid loss + 1% extender	67	25	11.0	3.3
4-1/2"	Tail	4824	50/50 POZ Class G + 2% gel +1% CaCl <sub>2</sub> + 0.2% dispersant + 0.2% fluid loss + 0.1% antifoam	881	25	14.3	1.56

Cement volumes for the 4-1/2" Production Casing will be calculated to provide a top of cement to 300' above base of surface casing. Cement volumes are approximate and were calculated under the assumption that a gauge hole will be achieved. Actual cement volumes may vary due to variations in the actual hole size and will be determined by running a caliper log on the drilled hole. Actual cement types may vary due to hole conditions and cement contractor used.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

#### 5. Drilling Fluids (mud) Program:

Interval	Mud Weight	Fluid Loss	Viscosity	Mud Type
(MD)				
0' – 2016' (KB)		No cntrl		Air/mist
2000'-3000' (KB)	8.4-8.6	No cntrl	28-36	Water
3000'-7290' (KB)	8.8-9.8	8 - 10 ml	32-42	Water/Gel

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

#### 6. Evaluation Program:

<u>Tests</u>: No tests are currently planned.

<u>Coring:</u> No cores are currently planned.

Samples: No sampling is currently planned.

#### Logging

- Dual Induction SFL /Gamma Ray/Caliper/SP/TDLT/CNL/ML TD to Base Surface Casing
- Cement Bond Log / Gamma Ray:
   TD to Base of Surface Casing or Top of Cement if below Base of Surface Casing

Stimulation: A stimulation or frac treatment will be designed for completion of this well based on openhole log analysis. The drill site, as approved, will be sufficient size to accommodate all completion activities.

#### 7. Abnormal Conditions:

No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S has been encountered or known to exist from previous wells drilled to similar depths in the general area.

Maximum anticipated bottom hole pressure equals approximately 3,791 psi (calculated at 0.52 psi/foot of hole) and maximum anticipated surface pressure equals approximately 2,187 psi (anticipated bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

#### 8. Anticipated Starting Dates:

Anticipated Commencement Date- Within one year of APD issue.

• Drilling Days- Approximately 10 days

Completion Days - Approximately 10 days

• Anticipate location construction within 30 days of permit issue.

#### 9. Variances:

None anticipated

#### 10. Other:

A Cultural Resource Inventory and Paleontology reconnaissance shall be conducted for the well location, access route and pipeline. The reports shall be submitted to the Division of Oil, Gas and Mining and the School and Institutional Trust lands Administration upon their receipt.

Single Shot directional surveys will be dropped every 2000 feet to monitor hole angle.

# ENDURING RESOURCES, LLC. BUCK CAMP #11-22-21-36 & 11-22-22D-36 SECTION 36, T11S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88: EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY, SOUTHEASTERLY, THEN SOUTHWESTERLY APPROXIMATELY 11.2 MILES ALONG THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST: TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 9.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST: TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH: TURN LEFT AND PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 9.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN NORTHEASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 6.0 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A SOUTHEASTERLY, THEN EASTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 1.0 MILES TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 69.6 MILES.

#### **Enduring Resources, LLC**

Buck Camp 11-22-21-36 771' FNL – 2,077' FWL NENW Sec. 36-T11S-R22E Uintah County, Utah

Lease #: ML-47077

#### **MULTI-POINT SURFACE USE & OPERATIONS PLAN**

#### 1. Existing Roads:

Directions to the Buck Camp 11-22-21-36 Well:

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY. THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 11.2 MILES ALONG THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 9.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH: TURN LEFT AND PROCEED IN A SOUTHERLY. THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 9.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY, SOUTHEASTERLY. THEN THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 6.0 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A SOUTHEASTERLY, THEN EASTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 1.0 MILE TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 69.60 MILES.

#### 2. Planned Access Roads:

The proposed access road will be approximately 1.00 mile of new construction all onlease.

ALL NEW CONSTRUCTION IS ON SITLA LANDS. The balance of the ON-LEASE road is an existing Class D County Road. However, this County Road Class D Road will be improved to meet SITLA (and DOG&M) requirements, if needed. Please refer to Topo Map "B" for the takeoff point for the new road construction and the Class D County Road that will be improved.

No off-lease access road right-of-way is needed.

The proposed access road will be utilized to transport personnel, equipment and supplies to and from the proposed well site during drilling, completion and production operations. The road will be utilized year round.

The access road will be crowned 2% to 3%, ditched and constructed with a running surface of 18 feet and a maximum disturbed width of 30 feet right-of-way. Maximum grade of road is 5% or less. Graveling or capping the roadbed will be performed as necessary to provided a well constructed, safe road. No fence crossings, culverts, turnouts, cattle guards or major cuts and fills are required. Prior to construction or upgrading, the proposed road shall be cleared of any snow and allowed to dry completely.

Surface disturbance and vehicular traffic will be limited to the proposed location and proposed access route. Any additional area needed will be approved in advance. All construction shall be in conformance with the standards outlined in the BLM and Forest Service publication: <u>Surface Operating Standards for Oil and Gas Exploration and Development.</u> 1989.

The road surface and shoulders will be kept in a safe usable condition and will be maintained in accordance with the original construction standards. All drainage ditches will be kept clear and free flowing and will be maintained according to original construction standards. The access road surface will be kept free of trash during operations. All traffic will be confined to the approved disturbed surface. Road drainage crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainages be blocked by the road bed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided. When snow is removed from the road during the winter months, the snow shall be pushed outside of the borrow ditches and the turnouts kept clear so that snowmelt will be channeled away from the road.

## 3. <u>Location of Existing Wells within a One-Mile radius (See "Topo" Map "C" attached):</u>

The following wells are wells located within a one (1) mile or greater radius of the proposed location.

a. None: Water Wells:

b. None: Injection Wells:

c. (2): Producing Wells:

i. Buck Camp 4-36, NWNW Sec. 36-11S-22E nka Buck Camp 11-22-11-36

d. None: Drilling Wells:

e. None: Shut-in Wells:

f. None: Temporarily Abandoned Wells:

g. None: Disposal Wells:h. None: Abandoned Wells:

i. None: Dry Holes:

j. None: Observation Wells:k. Various: Pending (staked) Wells:

i. Various wells staked by Enduring in Sec. 36-11S-22E

#### 4. Location of Existing and/or Proposed Facilities:

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e. production tanks, produced water tanks and/or heater treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank and be independent of the back cut.

All permanent (on site for six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the rocky Mountain Five State Inter-Agency Committee

All facilities will be painted within 6 months of installation. The color shall be Dark Olive Black. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

Gas Gathering Pipeline for this well will be:

5170' 4" Surface Pipeline On-Lease SITLA -0- Off-Lease N/A

An existing 4" surface pipeline presently being constructed along the County Case D Road.

If this well is capable of economic production, a 4" steel surface gas gathering line and related equipment shall be installed. The surface gas gathering line shall be in use year round. A total of approximately less than 5170 feet of surface gas gathering pipeline shall be laid on the surface to minimize surface disturbance:

The proposed pipeline will begin at the well site; and be laid on the surface next to the new access road (south and then westerly) to tie-in to a 4" steel surface pipeline that is being constructed to Canyon Gas along the County Road

The meter run will be housed. The gas gathering line will be buried or anchored down from the wellhead to the meter.

Upon plugging and abandonment, the gas gathering line will be removed and the disturbed area will be re-contoured and restored as near as practical to the original condition. If necessary, re-seeding operations will be performed after completion of other reclamation operations.

#### 5. Location and Type of Water Supply:

Whenever feasible, water for drilling shall be acquired from Enduring Water User Claim 49-2215, Application #T76132., or if that source is not feasible, then by Target Trucking Water User Claim #43-2195, or by Dalbo Inc. Water User Claim #43-8496.

Water will be hauled to the location over the roads marked on "Topo" Maps "A" and "B."

No water well is to be drilled on this lease.

#### 6 Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized fro location and access road construction.

Any gravel will be obtained from a commercial source; however, gravel sized rock debris associated with location and access road construction may be used as access road surfacing material.

#### 7. <u>Methods of Handling Waste Materials:</u>

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit well be constructed on the location and will not be located within natural drainage, where a flood hazard exits or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, brake or allow discharge of liquids.

The reserve pit will be lined with ¼ felt and a minimum of 16 mm plastic with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the will be disposed of in the pit.

A chemical portable toilet will be furnished with the drilling rig. The toilet will be replaced periodically utilizing a licensed contractor to transport by truck the portable

chemical toilet so that its contents can be delivered to the Vernal Wastewater Treatment Facility in accordance with state and county regulations.

Garbage, trash and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash well be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported or disposed of in association with the drilling, completion or testing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported or disposed of in association with the drilling, completion or testing of this well.

Produced oil will be stored in an oil tank and then hauled by truck to a crude purchaser facility. Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to an approved disposal site.

#### 8. Ancillary Facilities:

During drilling operations, approximately 20 days, the site will be a manned camp. Three or four additional trailers will be on location to serve as the crews' housing and eating facilities. These will be located on the perimeter of the pad site within the topsoil stockpiles. Refer to Sheet 4.

#### 9. Well Site Layout: (Refer to Sheets #2, #3, and #4)

The attached Location Layout Diagrams described drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s) and surface material stockpiles(s).

Please see the attached diagram for rig orientation and access roads.

The top soil will be windrowed rather than piled. It will be reseeded and track walker at the time the location is constructed. Seeding will be with the determined during the onsite. (Refer to "Seed Mixture for Windrowed Top Soil Will included:" following herein.

The top soil removed from the pit area will be store separately and will not be reseeded until the pit is reclaimed.

All pits shall be fence to the following minimum standards:

- a. 39 inch net wire shall be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- b. The net wire shall be no more than 2 inches above the ground. The barbed wire shall be 3 inches over the new wire. Total height of the fence shall be at least 42 inches.
- c. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- d. Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two fence posts shall be no greater than 16 feet.
- e. All wire shall be stretched by, using a stretching device, before it is attached to corner posts.
- f. The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.
- g. Location size may change prior to drilling the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling, the location will be re-surveyed and a Form 9 will be submitted.

#### 10. Plans for Surface Reclamation:

#### **Producing Location:**

- a. Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, materials, trash and debris not required for production.
- b. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 40CFR 3162.7.
- c. Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.
- d. The reserve pit and that portion of the location not needed for production facilities/operations will be re-contoured to the approximated natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.
- e. To prevent surface water(s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface 3 feet above surrounding round surface to allow the reclaimed pit area to drain effectively.
- f. Upon completion of back filling, leveling and re-contouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

#### **Dry Hole/Abandoned Location:**

- i. Abandoned well sites, roads and other disturbed areas will be restored as nearly as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions and re-establishment of vegetation as specified.
- ii. All disturbed surfaces will be re-contoured to the approximated natural contours with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. If necessary, re-seeding operations will be performed after completion of other reclamation operations.

#### **Seed Mixture for Windrowed Top Soil Will Included:**

To be provided by the SITLA.

#### 11. <u>Surface Ownership: Location, Access and Pipeline Route:</u>

Wellsite: SITLA

Access: SITLA

Pipeline: SITLA

#### 12. Other Information

#### On-site Inspection for Location, Access and Pipeline Route:

The on-site will be scheduled by SITLA and DOG&M.

#### Special Conditions of Approval:

- Tanks and Production Equipment shall be painted Dark Olive Black.
- Surface Gathering Pipeline shall be 4" or less.

#### Archeology:

a. A Cultural Resource Inventory Report is pending and to be prepared by Montgomery Archaeological Consultants.

#### Paleontology:

a. A Paleontology Reconnaissance Report is pending and to be prepared by Intermountain Paleo-Consulting.

If, during operations, any archaeological or historical sites, or any objects of antiquity (subject to the Antiquities Act of June 8, 1906) are discovered, all operations which would affect such sites will be suspended and the discovery reported promptly to the surface management agency.

#### 13, **Lessee's or Operator's Representatives:**

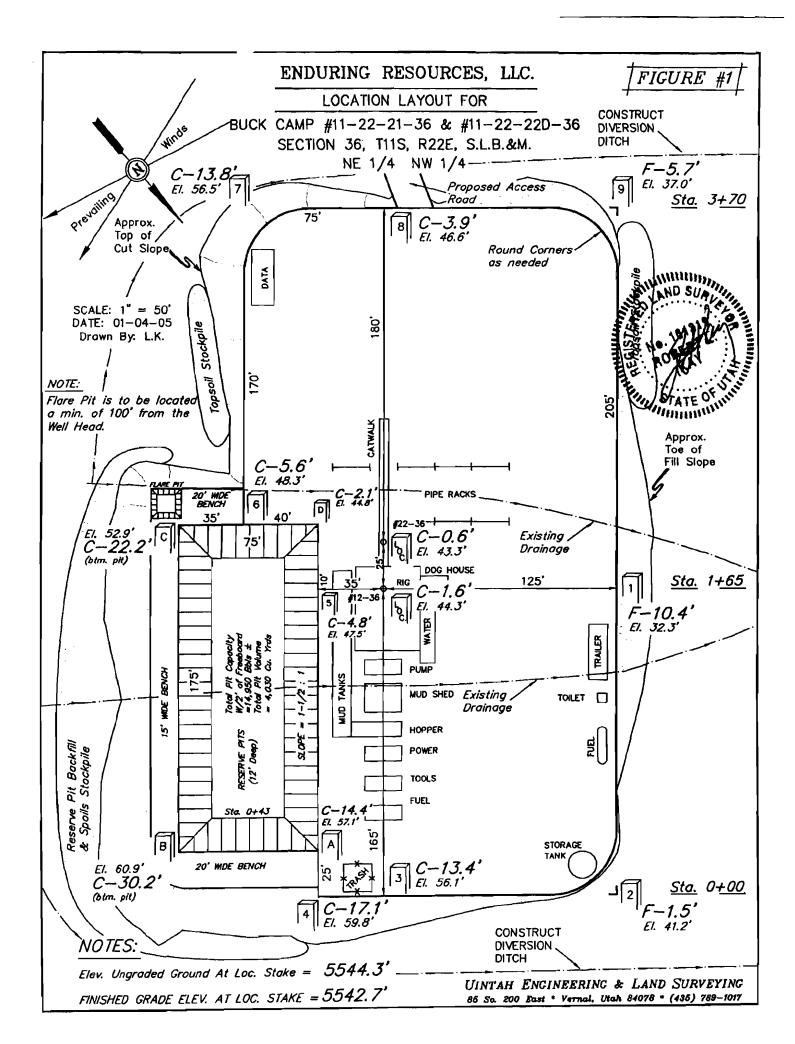
#### Representatives:

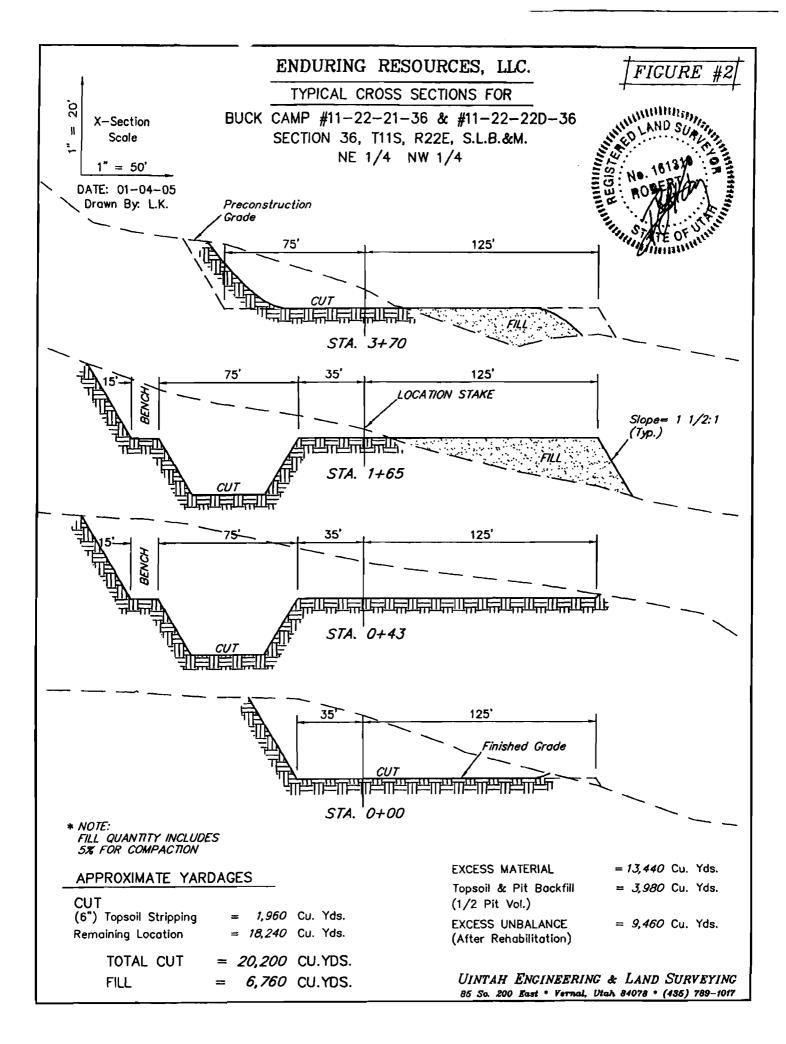
Alvin R. (Al) Arlian Landman – Regulatory Specialist Enduring Resources, LLC 475 17<sup>th</sup> Street, Suite 1500 Denver, Colorado 80202 Office Tel: 303-350-5114 Fax Tel: 303-573-0461

aarlian@enduringresources.com

Frank Hutto Vice President – Operations Enduring Resources, LLC 475 17<sup>th</sup> Street, Suite 1500 Denver, Colorado 80202 Office Tel: 303-573-5102 Fax Tel: 303-573-0461

fhutto@enduringresources.com





## ENDURING RESOURCES, LLC. BUCK CAMP #11-22-21-36 & 11-22-22D-36

LOCATED IN UINTAH COUNTY, UTAH SECTION 36, T11S, R22E, S.L.B.&M.

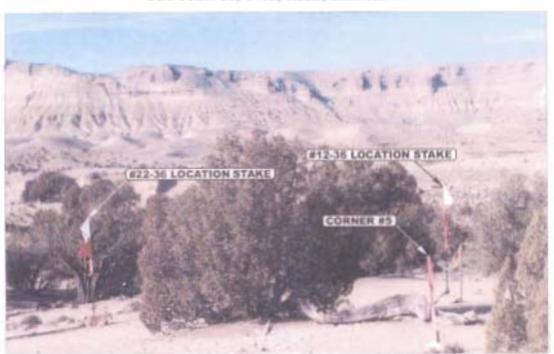


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY

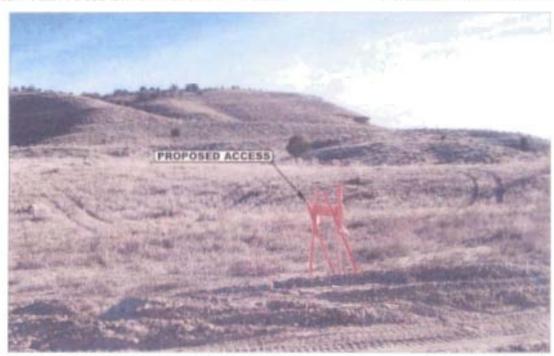


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: EASTERLY



Uintah Engineering & Land Surveying

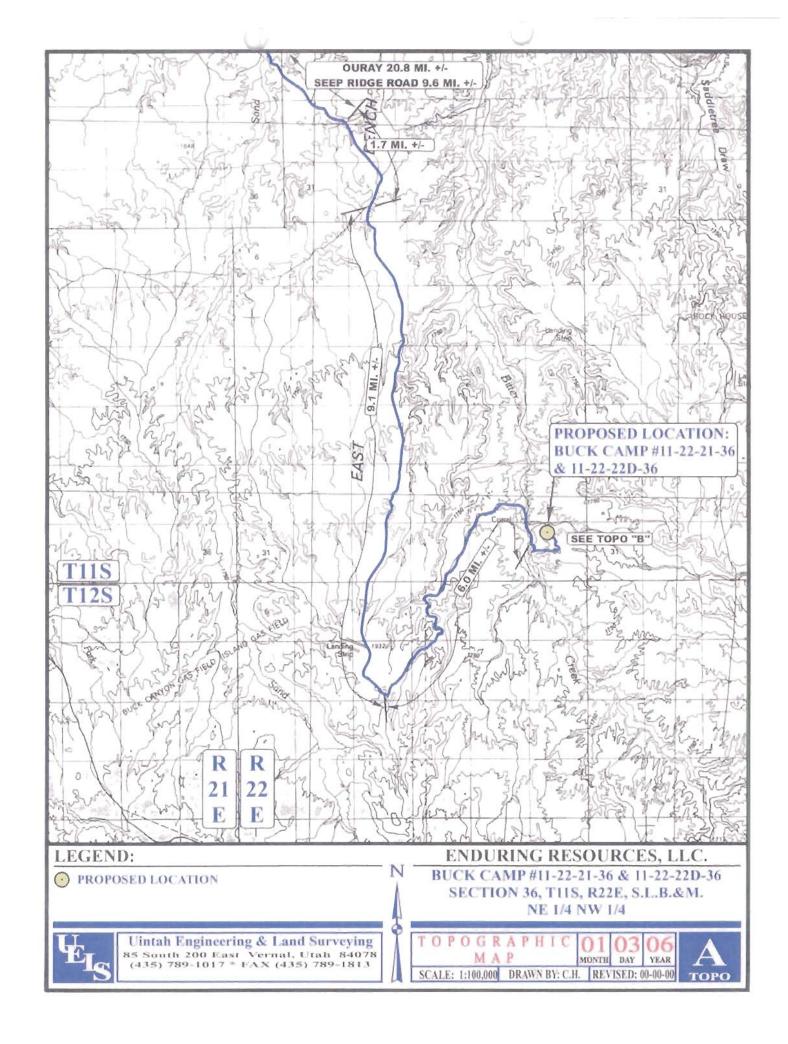
S 85 South 200 East Vernal, Utah 84078 435-789-1017 urlviituelsinc.com

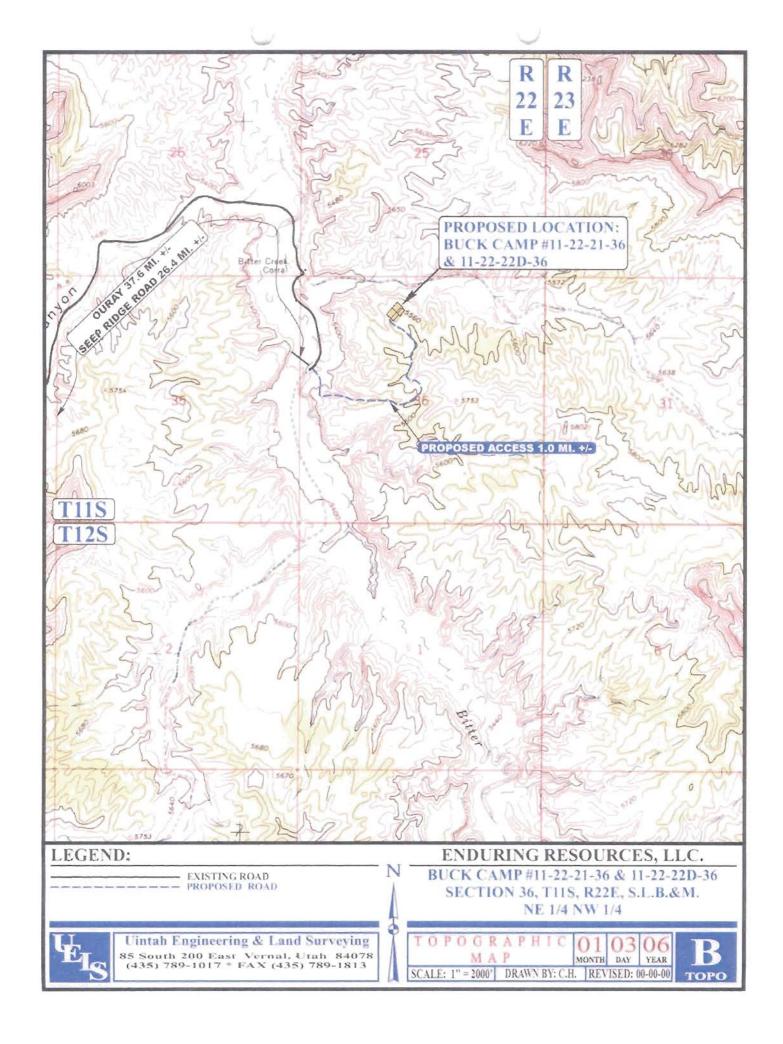
LOCATION PROTOS

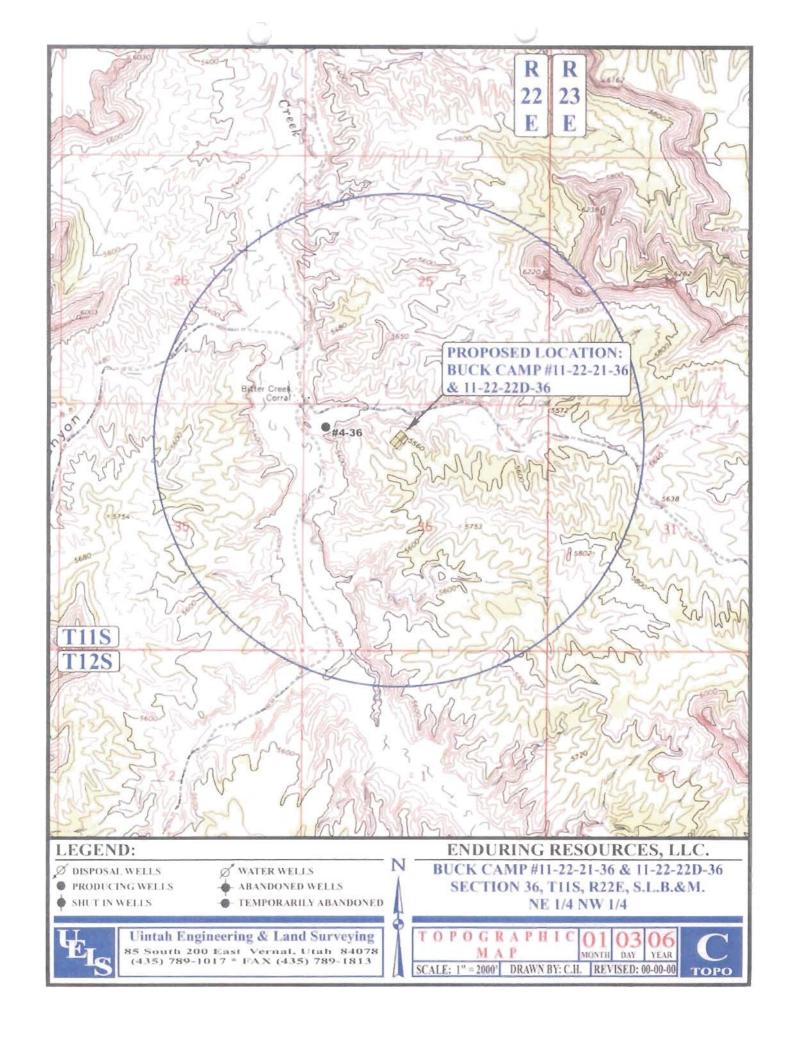
WOATE DAY

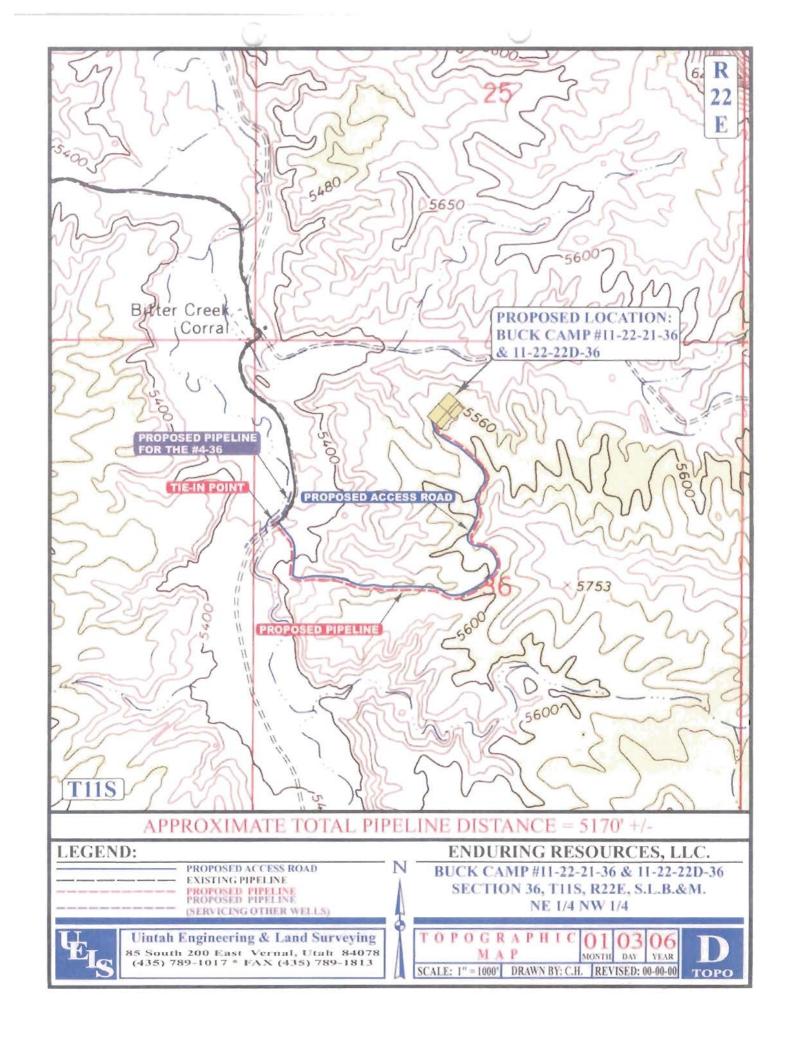
PHOTO

TAKEN BY: T.A. DRAWN BY: C.H. REVISED: 00-00-00

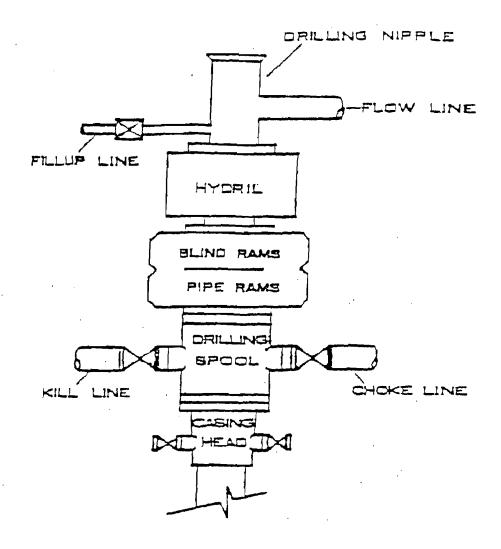


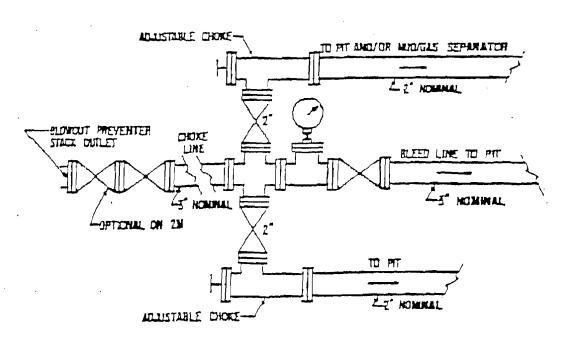






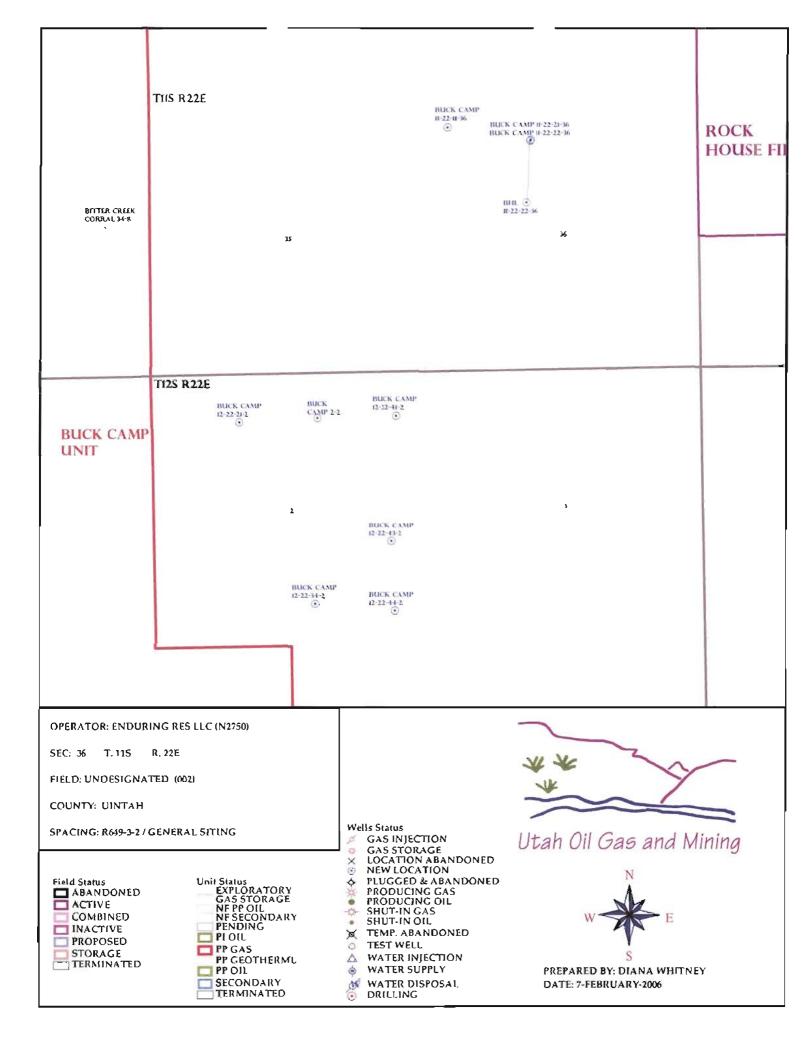
#### EOP STACK





## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 02/01/2006	API NO. ASSIC	NED: 43-04	7-37674		
WELL NAME: BUCK CAMP 11-22-21-36  OPERATOR: ENDURING RESOURCES, LLC ( N2750 )  CONTACT: AL ARLIAN	PHONE NUMBER:	303-350-511	.4		
PROPOSED LOCATION:	INSPECT LOCATN	BY: /	/		
NENW 36 110S 220E	Tech Review	Initials	Date		
SURFACE: 0771 FNL 2077 FWL BOTTOM: 0771 FNL 2077 FWL	Engineering	DKD	2/17/06		
COUNTY: UINTAH	Geology		-7-7-7-98		
LATITUDE: 39.82223 LONGITUDE: -109.4049 UTM SURF EASTINGS: 636520 NORTHINGS: 4409035	Gunfaga				
FIELD NAME: UNDESIGNATED ( 2 )					
LEASE TYPE: 3 - State  LEASE NUMBER: ML-47077  SURFACE OWNER: 3 - State	PROPOSED FORMA: COALBED METHANI		D		
RECEIVED AND/OR REVIEWED:	LOCATION AND SITING:				
(No. RLB0008031    No. RLB0008031   Potash (Y/N)   No. Oil Shale 190-5 (B) or 190-3 or 190-13   Water Permit (No. 43-8496 )   No. Experiment (No. 43-8496 )   No. Oil Shale 190-5 (B) or 190-3 or 190-13					
STIPULATIONS:  1-Spacing Stip  2-Stratement of Basis  3-Surface Cy Cont-Stop					
3-Suffice Cit Cont-Strop					



#### DIVISION OF OIL, GAS AND MINING APPLICATION FOR PERMIT TO DRILL STATEMENT OF BASIS

ENDURING RESOURCES, LLC

WELL NAME & NUMBER: Buck Camp 11-22-21-36 (Note: This well is a vertical well occupying the same pad					
as the Buck Camp 11-22-22-36 which will be a directional well.)					
API NUMBER: 43-047-37674					
LOCATION: 1/4,1/4 <u>SE/NW</u> Sec: <u>36 TWP</u> : <u>11S</u> RNG: <u>22E 771'</u> FNL <u>2077</u> FWL					
Geology/Ground Water:					
Enduring proposes to set 2,000 feet of surface casing cemented to the surface. The base of the moderately					
saline water is estimated at 4,500 feet. A search of Division of Water Rights records shows 1 water well					
within a 10,000 foot radius of the proposed location. The well is approximately .75 miles from the proposed					
location. The well is owned by the BLM and no depth is listed. The surface formation at this location is the					
Uinta/Green River Formation transition. The Uinta Formation is made up of discontinuous sands interbedded					
with shales and are not expected to produce prolific aguifers. The Green River Formation is made up of					
interbedded limestones, shales and sandstones. Fresh water aquifers can be found in the Green River					
Formation and should be protected. The proposed surface casing should adequately protect any potentially					
useable aquifers.					
Reviewer: Brad Hill Date: 02-15-06					

#### Surface:

**OPERATOR:** 

The predrill investigation of the surface was performed on 02/08/2006. The State of Utah (SITLA) owns both the surface and minerals of this location. Mr. Ed Bonner and Jim Davis of SITLA and Ben Williams of the Utah Division of Wildlife Resources were invited to the presite. Only Mr. Williams attended. Mr. Bonner was in the area and joined us later. Two wells are planned at this location. This well will be a vertical well and the Buck Camp 11-22-22-36 is a directional well. Approximately 1 mile of new access road will be constructed to reach the location. Ben Williams representing the UDWR stated the area is classified as critical value winter habitat for deer and high value winter elk habitat. He explained how the areas are classified and recommended to Mr. Hammond they limit their activity from Nov. 15 thru March 15 to protect wintering values for deer. This activity would include road and pad construction, drilling and work-over rigs. He furnished a copy of his recommendations to SITLA along with a recommended seed mix to be used to revegetate the area. The selected location appears to be the best site for constructing a pad and drilling and operating a well in the immediate area. No significant stability problems are anticipated. This predrill investigation was conducted on a cold sunny day.

Reviewer: Floyd Bartlett Date: 02/10/2006

#### Conditions of Approval/Application for Permit to Drill:

1. A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.

## C.-SITE PREDRILL EVALUATION Division of Oil, Gas and Mining

OPERATOR: ENDURING RESOURCES, LLC

WELL NAME & NUMBER: Buck Camp 11-22-21-36 (Note: This well is a vertical well occupying the same pad as the Buck Camp 11-22-22-36 which will be a

directional well.)

**API NUMBER:** 43-047-37674

**LEASE:** ML-47077 **FIELD/UNIT:** Undesignated

LOCATION: 1/4,1/4 SE/NW Sec: 36 TWP: 118 RNG: 22E 771' FNL 2077 FWL

LEGAL WELL SITING: 460 F SEC. LINE; 460 F 1/4,1/4 LINE; 920 F ANOTHER WELL.

GPS COORD (UTM): 636520 E 4409035 N SURFACE OWNER: State of Utah-SITLA

#### **PARTICIPANTS**

Floyd Bartlett (DOGM), Douglas Hammond (Enduring Resources), Larry Rowell (Ponderosa Construction), Brandon Bowthorpe and Matt Cook (Uintah Engineering and Land Surveying), Paul Yoder (Westrock Oil Field Services), Ben Williams (Utah Division of Wildlife Resources,

#### REGIONAL/LOCAL SETTING & TOPOGRAPHY

The proposed Buck Camp 11-22-21-36 well lies on a moderate westerly sloping side ridge, which slopes toward a sub drainage of Bitter Creek. It is surrounded on the west and north by high plateaus with side slopes topped by cliff forming bedrock. Two small drainages intersect the location.

The bottom of Bitter Creek is approximately 3/8 mile to the west of the proposed location. This portion of Bitter Creek is an ephemeral drainage only flowing during spring runoff and intense summer rainstorms. The White River is approximately 10 miles downstream to the north.

The location is approximately 22 miles south west of Bonanza Ut, and approximately 70 miles southwest of Vernal, UT. Access from Ouray, UT is by State Highway then Uintah County roads 38 miles to the Biter Creek Corrals. Then following a oil field development road south about 1 mile up the bottom of Bitter Creek to where a new road approximately 1.0 mile in length is proposed to the location.

Topography in the general area is broad canyon bottoms separated by steep and often ledgey side-slopes, which top out onto broad ridge tops. Frequent outwash plains and deposits occur along the sides of the major bottoms. Bitter Creek is a broad somewhat gentle alluvial wash, which is dry except for spring runoff and sometimes-intense summer rainstorms.

#### SURFACE USE PLAN

CURRENT SURFACE USE: wildlife and domestic sheep grazing and hunting.

PROPOSED SURFACE DISTURBANCE: 5,170 feet of new access road and construction of a well location 345'x 260' plus a reserve pit and soil

stockpile storage jutside the described area.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: <u>Buck Camp 4-36 well</u> is approximately 4 mile to the west of this proposed well. See attached map from GIS database.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: All production facilities will be on location and added after drilling well.

Approximately 5170 feet of pipeline will follow access road south and west to a tie in point.

SOURCE OF CONSTRUCTION MATERIAL: All construction material will be borrowed from site during construction of location.

ANCILLARY FACILITIES: None will be required.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? EXPLAIN: Unlikely. Oilfield activity is common in the area.

#### WASTE MANAGEMENT PLAN:

Drilled cuttings will be settled into reserve pit. Liquids from pit will be allowed to evaporate. Formation water will be confined to storage tanks. Commercial contractor will handle sewage facilities, storage and disposal. Trash will be contained in trash baskets and hauled to an approved land fill.

#### ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: None.

FLORA/FAUNA: Poorly vegetated pinion-juniper site with some black sagebrush understory and in the openings.

Pronghorn, rodents, songbirds, raptors, elk, deer, bobcat, coyote.

SOIL TYPE AND CHARACTERISTICS: Shaley sandy loam with some surface bedrock outcrops.

EROSION/SEDIMENTATION/STABILITY: Light natural erosion is occurring on the site. Two small drainages will be intercepted by the proposed. One will be diverted to the south around the location. No stability problems are anticipated with the construction and operation of the location.

PALEONTOLOGICAL POTENTIAL: none observed.

#### RESERVE PIT

CHARACTERISTICS: 175' by 75' and 12' deep. The reserve pit is planned in an area of cut on the north east corner of the location. No stabilization problems are expected.

LINER REQUIREMENTS (Site Ranking Form attached): A liner will be required for reserve pit. Sensitivity score is 40 and a rating Level II.

#### SURFACE RESTORATION/RECLAMATION PLAN

As per landowner agreement with SITLA.

SURFACE AGREEMENT: SITLA

CULTURAL RESOURCES/ARCHAEOLOGY: A survey will be completed and forwarded to SITLA.

#### OTHER OBSERVATIONS/COMMENTS

Two wells are planned at this location. This well will be a vertical well and the Buck Camp 11-22-22-36 is a directional well.

Ben Williams representing the UDWR stated the area is classified as critical value winter habitat for deer and high value winter elk habitat. He explained how the areas are classified and recommended to Mr. Hammond they limit their activity from Nov. 15 thru March 15 to protect wintering values for deer. This activity would include road and pad construction, drilling and work-over rigs. Jim Davis and Ed Bonner of SITLA were invited to the presite by email on 01/31/2006. Mr. Bonner was in the area but did not meet us for this investigation.

This predrill investigation was conducted on a cold sunny day.

#### ATTACHMENTS

Photos of site have been taken and placed on file.

Floyd Bartlett
DOGM REPRESENTATIVE

0<u>2/08/2005 12:00 Noon</u> DATE/TIME

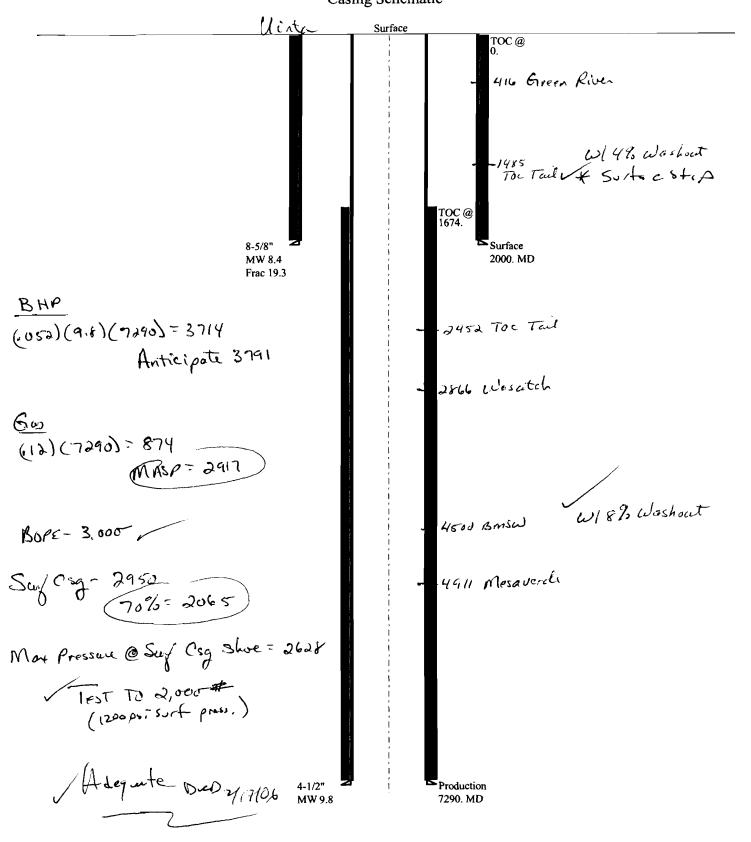
#### E uation Ranking Criteria and Ranking & .ce For Reserve and Onsite Pit Liner Requirements

<u>Site-Specific Factors</u>	Ranking	<u>Site Ranking</u>
Distance to Groundwater (feet)	•	
>200 100 to 200	0 5	
75 to 100 25 to 75	10 15	
<25 or recharge area	20	
Distance to Surf. Water (feet)		
>1000 300 to 1000	0 2	
200 to 300	10	
100 to 200 < 100	15 20	0
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280 500 to 1320	5 10	
<500	20	0
Distance to Other Wells (feet)		
>1320 300 to 1320	0 10	
<300	20	20
Native Soil Type		
Low permeability Mod. permeability	0 10	
High permeability	20	<u>10</u>
Fluid Type		
Air/mist Fresh Water	0 5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid containing significant levels of	15	
hazardous constituents	20	5
Drill Cuttings		
Normal Rock Salt or detrimental	0 10	0
	10	
Annual Precipitation (inches) <10	0	
10 to 20	5	r
>20	10	5
Affected Populations <10	0	
10 to 30	6	
30 to 50 >50	8 10	0
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown Present	10 15	0

Final Score 40 (Level II Sensitivity)

Sensitivity Level I = 20 or more; total containment is required. Sensitivity Level II = 15-19; lining is discretionary. Sensitivity Level III = below 15; no specific lining is required.

## Casing Schematic Camp 11 \_2-21-36



Well name:

02-06 Enduring Buck Camp 11-22-21-36

Operator:

**Enduring Resources, LLC** 

String type:

Surface

Project ID:

43-047-37674

Location:

**Uintah County** 

Minimum design factors: **Environment:** 

1.00

Collapse

Design parameters:

Mud weight: 8.400 ppg Design is based on evacuated pipe.

Collapse: Design factor 1.125 H2S considered? Surface temperature: No 65 °F 93 °F

Bottom hole temperature: Temperature gradient:

1.40 °F/100ft

Minimum section length:

250 ft

Burst:

Design factor

Cement top:

Surface

**Burst** 

Max anticipated surface

1,760 psi pressure: Internal gradient: 0.120 psi/ft Calculated BHP

No backup mud specified.

2,000 psi

Tension:

Body yield:

8 Round STC: 1.80 (J) 8 Round LTC: 1.80 (J) **Buttress:** 1.60 (J) 1.50 (J) Premium:

1.50 (B)

Tension is based on buoyed weight. Neutral point: 1,748 ft

Re subsequent strings:

Non-directional string.

Next setting depth: 7,290 ft Next mud weight: 9.800 ppg Next setting BHP: 3,711 psi

Fracture mud wt: Fracture depth: Injection pressure

19.250 ppg 2,000 ft 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2000	8.625	24.00	J-55	ST&C	2000	2000	7.972	96.3
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	873	1370	1.570	2000	2950	1.47	42	244	5.82 J

Prepared

Clinton Dworshak

Utah Div. of Oil & Mining

Phone: 801-538-5280 FAX: 810-359-3940

Date: February 17,2006 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kernler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name: 02-06 Enduring Buck Camp 11-22-21-36

Operator: Enduring Resources, LLC

String type: Production Project ID: 43-047-37674

Location: Uintah County

Design parameters: Minimum design factors: Environment:

Tension:

3711

8 Round STC:

CollapseCollapse:H2S considered?NoMud weight:9.800 ppgDesign factor1.125Surface temperature:65 °FDesign is based on evacuated pipe.Bottom hole temperature:167 °F

Temperature gradient: 1.40 °F/100ft

1.80 (J)

Minimum section length: 1,500 ft

Non-directional string.

Burst:

Design factor 1.00 Cement top: 1,674 ft

Burst

Max anticipated surface

pressure: 2,836 psi Internal gradient: 0.120 psi/ft

Calculated BHP 3,711 psi

6350

1.711

8 Round LTC: 1.80 (J)
No backup mud specified. Buttress: 1.60 (J)
Premium: 1.50 (I)

Premium: 1.50 (J) Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 6,222 ft

Nominal End True Vert Run Segment Measured Drift Internal Length Size Weight Finish Depth Depth Capacity Seq Grade Diameter (lbs/ft) (ft³) (ft) (in) (ft) (ft) (in) 1 7290 4.5 11.60 N-80 LT&C 7290 7290 3.875 169 Collapse Collapse Collapse Burst **Burst Tension** Tension Run **Burst Tension** Strength Design Design Seq Load Load Strength Design Load Strength (psi) **Factor** (psi) (psi) (psi) **Factor** (Kips) (Kips) **Factor** 

7780

2.10

72

223

3.09 J

Prepared Clinton Dworshak Phone: 801-538-5280 Date: February 17,2006 by: Utah Div. of Oil & Mining FAX: 810-359-3940 Salt Lake City, Utah

Remarks:

1

3711

Collapse is based on a vertical depth of 7290 ft, a mud weight of 9.8 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

From:

Ed Bonner

To: Date: Whitney, Diana 5/8/2006 12:36:16 PM

Subject:

Well Clearance

The following wells have been given cultural resource clearance by the Trust Lands Cultural Resources Group:

```
Enduring Resources, LLC
  Buck Camp 11-22-13-36
  Buck Camp 11-22-14-36
  Buck Camp 11-22-21-36
  Buck Camp 11-22-22-36
  Buck Camp 11-22-23-36
  Buck Camp 11-22-24-36
  Buck Camp 12-22-11-2
  Buck Camp 12-22-13-2
  Buck Camp 12-22-21-2
  Buck Camp 12-22-24-2
  Buck Camp 12-22-34-2
  Buck Camp 12-22-41-2
                         (1 significant site which must be avoided)
  Buck Camp 12-22-42-2
  Buck Camp 12-22-43-2
  Buck Camp 12-22-44-2
Kerr McGee Oil & Gas Onshore LP
  NBU 922-32E
  NBU 922-32H
  NBU 922-32D
  NBU 922-32J3
  NBU 922-3202
```

Westport Oil & Gas Company

NBU 922-32N

NBU 922-32J1

Tidewater Oil & Gas Company

Tidewater State 23-1

Tidewater State 23-2 (1 significant site which must be avoided)

Tidewater State 23-5

Tidewater State 32-3

If you have any questions regarding this matter please give me a call.

CC: Davis, Jim; Garrison, LaVonne; Hill, Brad; Hunt, Gil



State of Utah

Department of **Natural Resources** 

MICHAEL R. STYLER Executive Director

**Division of** Oil, Gas & Mining

> JOHN R. BAZA Division Director

JON M. HUNTSMAN, JR. Governor

> GARY R. HERBERT Lieutenant Governor

> > May 8, 2006

Enduring Resources, LLC 475 17th St., Ste. 1500 Denver, CO 80202

Re: Buck Camp 11-22-21-36 Well, 771' FNL, 2077' FWL, NE NW, Sec. 36,

T. 11 South, R. 22 East, Uintah County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-37674.

Sincerely,

Gil Hunt

Associate Director

XLICEL +

pab **Enclosures** 

**Uintah County Assessor** cc:

SITLA

<b>Operator:</b>	Enduring Resources, LLC	
Well Name & Number	Buck Camp 11-22-21-36	
API Number:	43-047-37674	
Lease:	ML-47077	

Location: NE NW Sec. 36 T. 11 South R. 22 East

#### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

#### 2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

- 5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.
- 6. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
- 7. Surface casing shall be cemented to the surface.

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47077
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to	7. UNIT or CA AGREEMENT NAME:
drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	n/a 8. WELL NAME and NUMBER:
1. TYPE OF WELL OIL WELL GAS WELL OTHER	Buck Camp 11-22-21-36
2. NAME OF OPERATOR:	9. API NUMBER:
Enduring Resources, LLC	4304737674  10. FIELD AND POOL, OR WILDCAT:
3. ADDRESS OF OPERATOR: 475 17th Street, Suite 1500 CITY Denver STATE CO ZIP 80202 PHONE NUMBER: (303) 350-5719	Undesignated
4. LOCATION OF WELL FOOTAGES AT SURFACE: 771' FNL - 2077' FWL	соилту: <b>Uintah</b>
FOUTAGES AT SURFACE. THE TIME " ZOTT TWE	
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 36 11S 22E S	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REP	ORT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	
✓ NOTICE OF INTENT ☐ ACIDIZE ☐ DEEPEN	REPERFORATE CURRENT FORMATION
(Submit in Duplicate) ALTER CASING FRACTURE TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start: CASING REPAIR NEW CONSTRUCTION	TEMPORARILY ABANDON
CHANGE TO PREVIOUS PLANS OPERATOR CHANGE	TUBING REPAIR
CHANGE TUBING PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK	WATER DISPOSAL
(Submit Original Form Only)  CHANGE WELL STATUS  PRODUCTION (START/RESUME)	WATER SHUT-OFF
Date of work completion:  COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE	✓ other: Request for APD
CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATIO	Extension
DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volume to the expiration date of the proposed by the TO: 5/3/2009  DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volume to the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division of the expiration date of the proposed by the Utah Division date of the Utah Division	
COPY SENT TO OPERATOR  Date: 5-6-2008  Initials: 45	
NAME (PLEASE PRINT) Alvin R. (AI) Arlian TITLE Landman - Reg	gulatory Specialist
SIGNATURE	

(This space for State use only)

RECEIVED MAY 0 5 2008

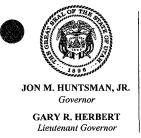


#### Application for Permit to Drill Request for Permit Extension Validation

Validation
(this form should accompany the Sundry Notice requesting permit extension)

Well Name: Location: Company Per		FWL, NENW, Sec 36, T11S- Enduring Resources, LLC				
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.						
Following is a verified.	checklist of som	ne items related to the a	application, which should be			
If located on p agreement be	rivate land, has en updated? Yes	the ownership changedes ☐ No ☐	l, if so, has the surface			
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes□No☑						
Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes□No☑						
Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes□No ☑						
Has the approved source of water for drilling changed? Yes□No☑						
Have there be which will requestion? Y	uire a change in	l changes to the surface plans from what was d	e location or access route iscussed at the onsite			
Is bonding stil	l in place, which	n covers this proposed v	well? Yes⊠No□			
Mila			4/30/2008 Date			
Signature			Date			
Title: Landma	n - Regulatory Spec	zialist				
Representing	Enduring Resour	irces, LLC	_			
			RECEIVE			

RECEIVED MAY 0 5 2008



## State of Utah

#### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

#### Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

May 14, 2009

Enduring Resources, LLC 475 17<sup>TH</sup> Street, Suite 1500 Denver, CO 80202

Re: <u>APD Rescinded – Buck Camp 11-22-21-36, Sec. 36, T.11S, R.22E</u>

Uintah County, Utah API No. 43-047-37674

#### Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on May 8, 2006. On May 3, 2007 and on May 5, 2008 the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective May 14, 2009.

A new APD must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Ehvironmental Scientist

cc: Well File

Ed Bonner, SITLA

